

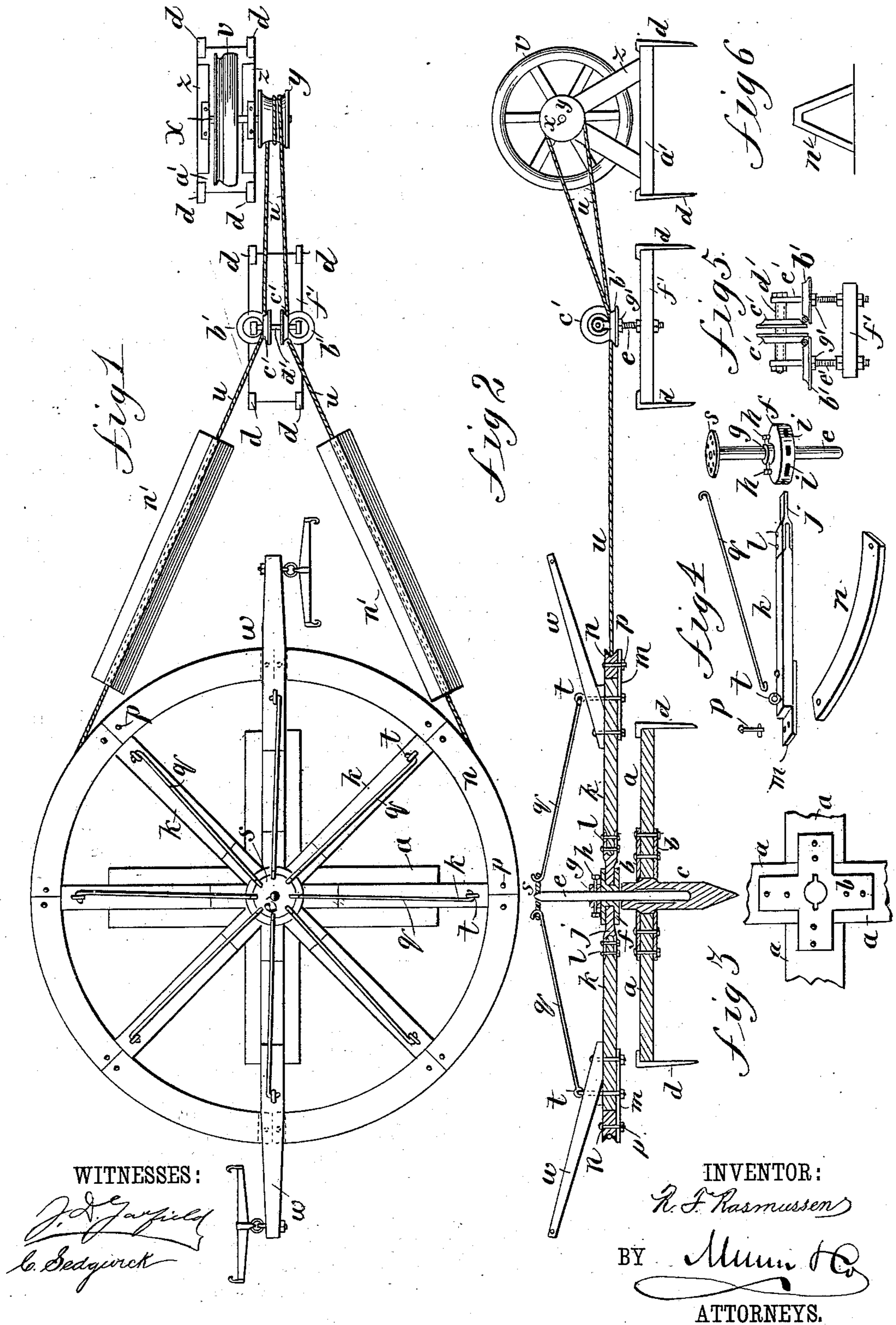
(No Model.)

R. F. RASMUSSEN.

HORSE POWER.

No. 280,080.

Patented June 26, 1883.



UNITED STATES PATENT OFFICE.

RASMUS F. RASMUSSEN, OF NEW ALBUQUERQUE, TERRITORY OF NEW MEXICO.

HORSE-POWER.

SPECIFICATION forming part of Letters Patent No. 280,080, dated June 26, 1883.

Application filed April 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, RASMUS F. RASMUSSEN, of New Albuquerque, county of Bernalillo, Territory of New Mexico, have invented a new and Improved Horse-Power, of which the following is a full, clear, and exact description.

My invention consists of an improved contrivance for a "knockdown" or sectional and detachable power-drum; also of a simple contrivance for a bed-piece for the support of the same; and also of a simple contrivance of guiding and tightening rollers for endless transmitting-rope; and also of the counter-shaft from which the power is to be taken from the drum to be applied for use, all constituting a simple, cheap, and useful horse-power apparatus that can be separated in small, light parts, that may be easily handled by one person, and may be readily set up by means of stakes driven in the ground, and will work easier and to better advantage than other horse-powers, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved horse-power. Fig. 2 is partly a sectional elevation and partly a side elevation. Fig. 3 is a plan of a portion of the bed-frame for the support of the power-drum. Fig. 4 represents details of the power-drum, showing the detachable parts. Fig. 5 is a front elevation of the guide and tightening rollers for the driving-rope, and Fig. 6 is an end elevation of one of the guards, to cover the rope where it crosses the path of the horse.

I make a bed frame or foundation consisting of the two strong planks, *a*, crossed at the middle, and halved or boxed together, and secured by re-enforcing cross-plates *b*, of metal, bolted or riveted on, in the center of which bed-frame I arrange a pointed metal stake, *c*, for driving into the ground, for securing the bed-frame in position; also using hook-headed stakes *d* at the ends of the planks for additional security. In the upper end of this center stake, *c*, I make a deep socket for reception of the vertical spindle *e*, which forms the axial support and pivot on which the main

driving-drum revolves, which drum I construct in sections as follows, for enabling it to be taken apart for ready handling and removal: I provide a cast-metal hub, *f*, with a collar, *g*, and set-screws *h*, for fastening to the spindle, said hub having spoke-sockets *i*, for reception of the tenons *j* of the inner ends of the spokes, the said tenons consisting of metal attachments with a forked or crotched end, in which the inner end of a wood-bar, *k*, constituting the main portion of the arm, is fitted and fastened by rivets *l*.

On the outer end of the wood spoke *k* a flat plate, *m*, is attached, which projects beyond the end to receive the ends of the wood sections or fellies *n*, which abut together on said plates and against the ends of the arms, where they are detachably fastened by key-bolts *p*, enabling them to be removed when the wheel is to be taken apart. On the top of the spindle *e*, which extends a suitable distance above the wheel-hub, for staying the wheel-arms and rim by the tension-rods *q*, is a disk, *s*; and near the outer ends of the arms is an eye-stud, *t*, in which the said rods hook detachably for suspension-stays to the rim *n* of the drum. The drum thus constructed is grooved in the periphery for working an endless wire or other rope, *u*, to drive a counter-shaft and pulley, *v*, and has one or more sweeps, *w*, attached for hitching on the horses for turning it. The counter-shaft, to which the rope gives motion by the small pulley *y*, is mounted by suitable supports, *z*, on a bed-plate, *a'*, which is also staked down to the ground by hook-headed spikes *d*, and the rope *u* runs between two pairs of grooved-faced bevel guide-pulleys, *b'* *c'*, in the grooves of which the rope has controlling-guides, by which it is made to run, as desired. The pulleys *c'* are arranged in fixed positions on a horizontal shaft, *d'*, which is supported in uprights *e'*, attached to a bed-piece, and having the pulleys *b'* fitted on their threaded portions, with adjusting-nuts *g'* under them to set them with relation to pulleys *c'*, for properly closing the rope in the grooves.

This guide and tightening device makes the two members of the rope converge, so as to run properly on the pulley *y*, and, being shifted toward the driving-drum, tightens the rope, as required, for the proper adhesion to the drum

and the pulley *y*. The bed-piece *f'* is, like the others, to be staked to the ground by hook-headed spikes or stakes *d*.

In the path of the horses I cover the rope
5 with the Λ -shaped guards *n'*.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The bed-frame for the support of the
10 power-drum of a horse-power, consisting of the cross beams or planks *a*, re-enforcing cross-plates *b*, and the center stake, *c*, combined and arranged substantially as described.

2. The combination, in a horse-power drum,
15 of the supporting-spindle *e*, on which the hub *f* is fastened, and extending above said hub, of the disk *s* and suspension-stays *q*, connecting the arms or spokes with the said disk, which is mounted on the top of the spindle, substan-
20 tially as described.

3. The combination, in a horse-power drum, of the hub *f*, spindle *e*, spokes *j k*, rim-sections *n*, and suspension-stays *q*, said hub, spokes, rim-sections, and suspension-stays being de-
25 tachably connected, substantially as described.

4. The spokes consisting of metal tenon *j*, wood bar *k*, and metal plate *m*, in combina-

tion with hub *f* and rim-sections *n*, substan-
tially as described.

5. The rim-sections *n*, in combination with 30 plates *m* and wood bar *k* of the spokes, and being detachably connected thereto by key-bolts *p*, substantially as described.

6. The combination, with the driving-rope
35 *u*, drum, and counter-shaft and pulleys, of the guide and tightening device, consisting of the two pairs of grooved-faced bevel-pulleys *b' c'*, substantially as described.

7. The combination, in a guide and tight-
40 ening device for an endless driving-rope, of the grooved-faced bevel-pulleys *c'*, and the grooved-faced bevel-pulleys *b'*, the former being arranged in fixed position, and the latter being adjustable with relation to the former,
substantially as described.

8. The combination, in a horse-power, of
45 the power-drum endless rope, guide and tightening device, and the counter-shaft and pulleys, substantially as described.

RASMUS FRED RASMUSSEN.

Witnesses:

HENRY HENNINGSEN,
GEORGE JOHNSEN.